



# *Simulthesia Vet: Learning At Your Fingertips*

AVTE Conference 2023

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# A Bit About Me

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<https://osvs.net/wp-content/uploads/2019/09/slide-img01.jpg>

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# The Plan For This Session

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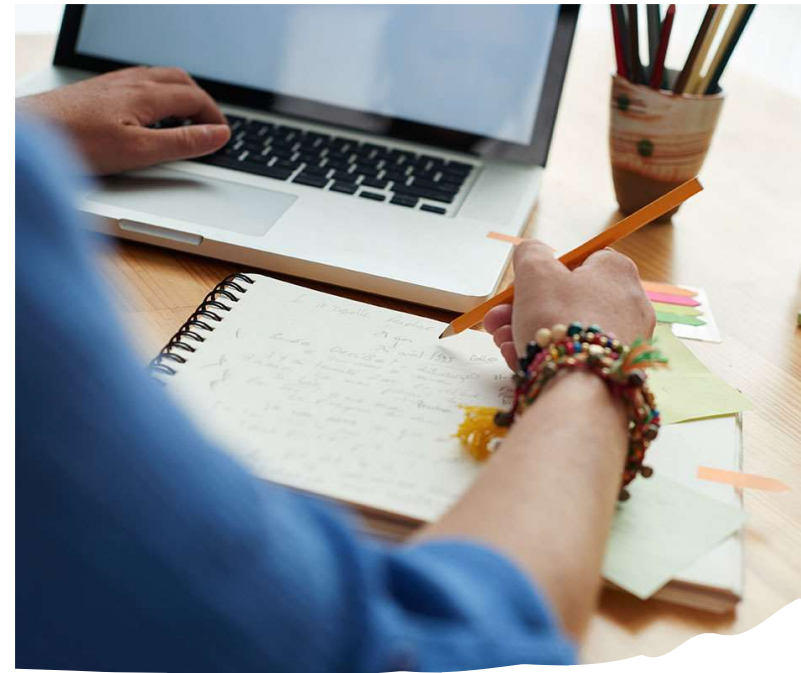
- *Discuss what would be ideal characteristics in an online simulator*
- *Describe the data collection process*
- *Describe the complexities & barriers of bringing together complex programs*
- *Communication group exercise*
- *View Simulthesia Vet*
- *Discuss lessons learned and take aways*





Padlet URL <https://padlet.com/amyraissabirchall/avte-2023-simulthesia-vet-presentation-byn016cd9m4ylnuy>





## What We Needed!

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[https://tse1.mm.bing.net/th?id=OIP.JA9hw8wA8YnO3H\\_cIXc1GQHaEc&pid=Api&P=0&h=180](https://tse1.mm.bing.net/th?id=OIP.JA9hw8wA8YnO3H_cIXc1GQHaEc&pid=Api&P=0&h=180)  
[https://candacedoby.com/wp-content/uploads/2020/07/building\\_confidence.png](https://candacedoby.com/wp-content/uploads/2020/07/building_confidence.png)  
<https://distancelearning.anglia.ac.uk/wp-content/uploads/2019/04/Home-Study-Health-Tips-1.jpg>

# Data Collection Process



Datamanager

Setup Upload Load Close Print Help About Exit

Patient Information

Name: DELTA  
 ID: 22 097  
 Age: 25  
 Sex: Male  
 Hospital:  
 Tel:

Modify EMR  
 OK Cancel

History Review

- NIBP List
- Tabular Trend
- Graphical Trend
- Last Waveform
- Alarm Event
- ARR Review

Start Time: 2053-12-31 07:25:22

NO.	DateTime	NIBP	HR	SpO2	PR	T1/T2	RR	ST	Event
1	2053-12-31 08:10:04	11.9/9.4 10.2	-	-	48	18.7/-	55	-	N
2	2053-12-31 08:06:21	13.0/8.6 10.0	125	100	127	35.5/-	40	-	N
3	2053-12-31 08:03:32	12.9/8.4 9.9	132	100	131	35.6/-	35	-	N
4	2053-12-31 08:00:49	12.6/7.8 9.3	269	91	138	35.5/-	40	-	N
5	2053-12-31 07:58:04	12.6/7.8 9.3	161	95	150	35.6/-	40	-	N
6	2053-12-31 07:55:22	13.2/8.1 9.9	179	99	147	35.7/-	38	-	N
7	2053-12-31 07:52:37	12.9/8.9 10.1	165	100	139	36.0/-	32	-	N
8	2053-12-31 07:49:50	11.9/7.2 8.9	134	99	140	36.0/-	32	-	N
9	2053-12-31 07:46:59	13.7/8.6 10.2	132	98	138	36.2/-	27	-	N
10	2053-12-31 07:44:17	12.2/7.4 9.0	130	96	133	36.2/-	32	-	N
11	2053-12-31 07:41:18	12.2/7.4 9.0	130	93	131	36.3/-	30	-	N
12	2053-12-31 07:38:35	13.7/9.0 10.6	136	96	143	36.3/-	26	-	N
13	2053-12-31 07:35:49	12.7/8.2 9.8	123	96	128	36.3/-	28	-	N
14	2053-12-31 07:33:02	13.0/8.1 9.8	146	95	138	36.7/-	27	-	N
15	2053-12-31 07:29:50	-	-	-	-	22.3/-	67	-	N
16	2053-12-31 07:27:37	-	-	97	-	22.2/-	48	-	N
17	2053-12-31 07:25:22	-	-	-	-	22.2/-	-	-	N

# Data Collection Barriers



There's Just Not  
**ENOUGH**  
*Time!*



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Bringing  
the  
Simulator  
to Life!







# Two Programs Working Together

## Communication Exercise



# Communication Exercise

## TOPICS

**Capnography** – what it is, what it does/how does it work, why do we need it, expected parameters, parameters indicating intervention

**Pulse-Oximetry** - what it is, what it does/how does it work, why do we need it, expected parameters, parameters indicating intervention

**NIBP** - what it is, what it does/how does it work, why do we need it, expected parameters, parameters indicating intervention

**ECG** - what it is, what it does/how does it work, why do we need it, expected parameters, parameters indicating intervention

**Crystalloid Fluids** – what are they, how they are administered, why are they needed, how do they help patients (particularly BP)

# Introducing Your Client!

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Sample Footer Text



# Barriers

1. Anesthesia Concepts
2. Patient crisis design
3. Communicating vision
4. Explaining graphs
5. Data presentation

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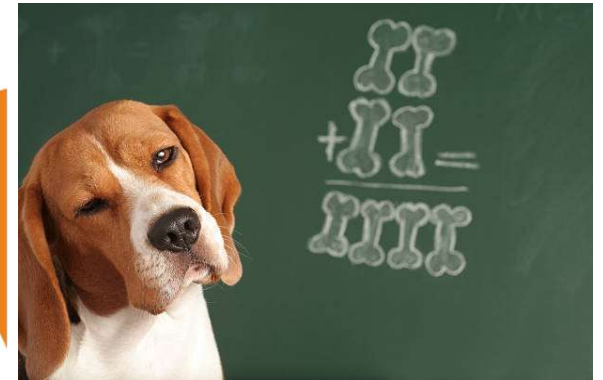


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# Overcoming Barriers: What Was Learned

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**MAKE IT SIMPLE,  
BUT SIGNIFICANT.**

DON DRAPER

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# Overcoming Barriers: What Was Learned

<b>Gorgeous 22092F DSH Female</b>	4:51:54	104/84/90			103 bpm	36.9 celsius	21 bpm	Patient in the process of being connected, on 1% Isoflurane
	4:54:36	109/70/82	103 bpm	91%	104 bpm	37.0 celsius	20 bpm	
	4:57:29	110/70/84	99 bpm	100%	101 bpm	36.9 celsius	20 bpm	Surgey start time
	5:00:16	110/72/86	97 bpm	100%	99 bpm	37.4 celsius	21 bpm	Hydromorphone bolus IV pain management
	5:03:04	110/72/86	99 bpm	100%	100 bpm	37.3 celsius	23 bpm	
	5:05:35	133/106/114	101 bpm	91%	116 bpm	37.2 celsius	23 bpm	
	5:08:26	113/70/86	99 bpm	100%	101 bpm	37.1 celsius	20 bpm	
	5:11:11	104/77/86	103 bpm	100%	103 bpm	37.0 celsius	22 bpm	
	5:14:05	138/93/109	99 bpm	100%	105 bpm	36.9 celsius	25 bpm	
	5:16:49	117/89/98	120 bpm	99%	111 bpm	36.9 celsius	19 bpm	Increase Isoflurane to 1.5%

**IV crystalloid fluid bolus** – we use this to support blood pressure. A ‘bolus’ (a defined amount given over a defined period) is given when a patient has low blood pressure. For the purposes of this project a bolus will be given over approximately 15 minutes. By the end of the bolus we should see an elevation in NIBP (non-invasive blood pressure). The three parameters we work with are systolic, diastolic, and mean arterial pressure. This is presented numerically as SYS/DIA/MAP so, for example (114/67/78 respectively).

**Isoflurane** - this is the inhalant anesthetic agent that maintains general anesthesia (keeps the patient asleep). It is delivered by an anesthetic delivery system and can be given in percentages from 0 to 5%. As levels increase, Isoflurane decreases vascular resistance and blood pressure. As the percentage of inhalant increases, the change in blood pressure changes.

Introducing  
Simulthesia  
Vet!

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Cases

Graph Monitor

Admin Panel

Start Sim

End Simulation

Restart Simulation

01:39

Patient Data



Name: Jasper

Procedure: orchiectomy

Age: 2

Gender: Male

Species: Feline

Breed: Domestic Shorthair

Case Library

Case Selected:

Case 1  
Name: Bambi

Case 2  
Name: Runt

Case 3  
Name: Jasper


Case 4  
Name: Gypsy

amy.birchall@dal.ca

Password

[Forgot password?](#)

Login



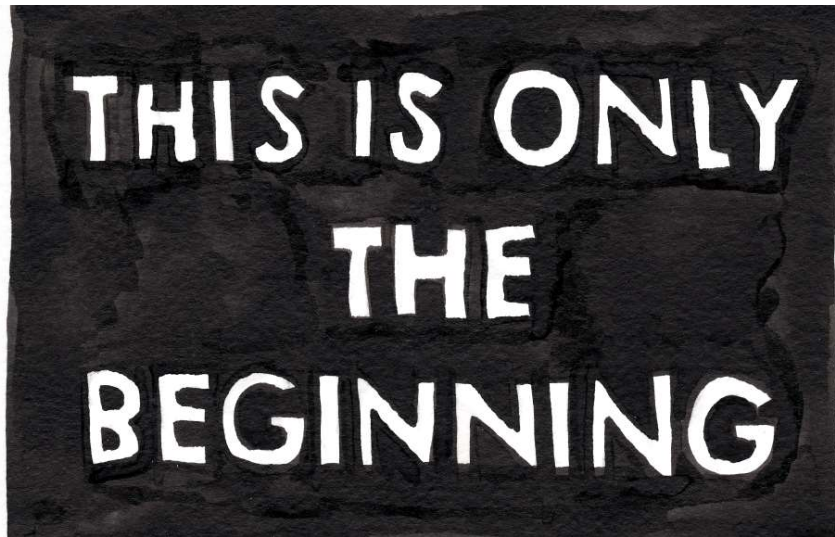
**ALLOW YOURSELF  
TO BE A  
BEGINNER. NO  
ONE STARTS  
OFF BEING  
EXCELLENT**

#TerryLeague

Photo Credits: <https://s-media-cache-ak0.pinimg.com/736x/b9/14/25/b91425cb070da433e9ec268dc4059380.jpg>

## Areas We Focused On

- *Uncomplicated cases*
- *Interventions we commonly see while teaching*
- *Very easy and common drug selections*
- *Very easy and common fluid selections*
- *Alterations of Isoflurane*



There Is More To Come!





## Interesting Things I Learned & Take Aways

Please Get In Touch!  
Amy.Birchall@dal.ca

Questions  
or  
Comments?



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